

# DISTRICT 10

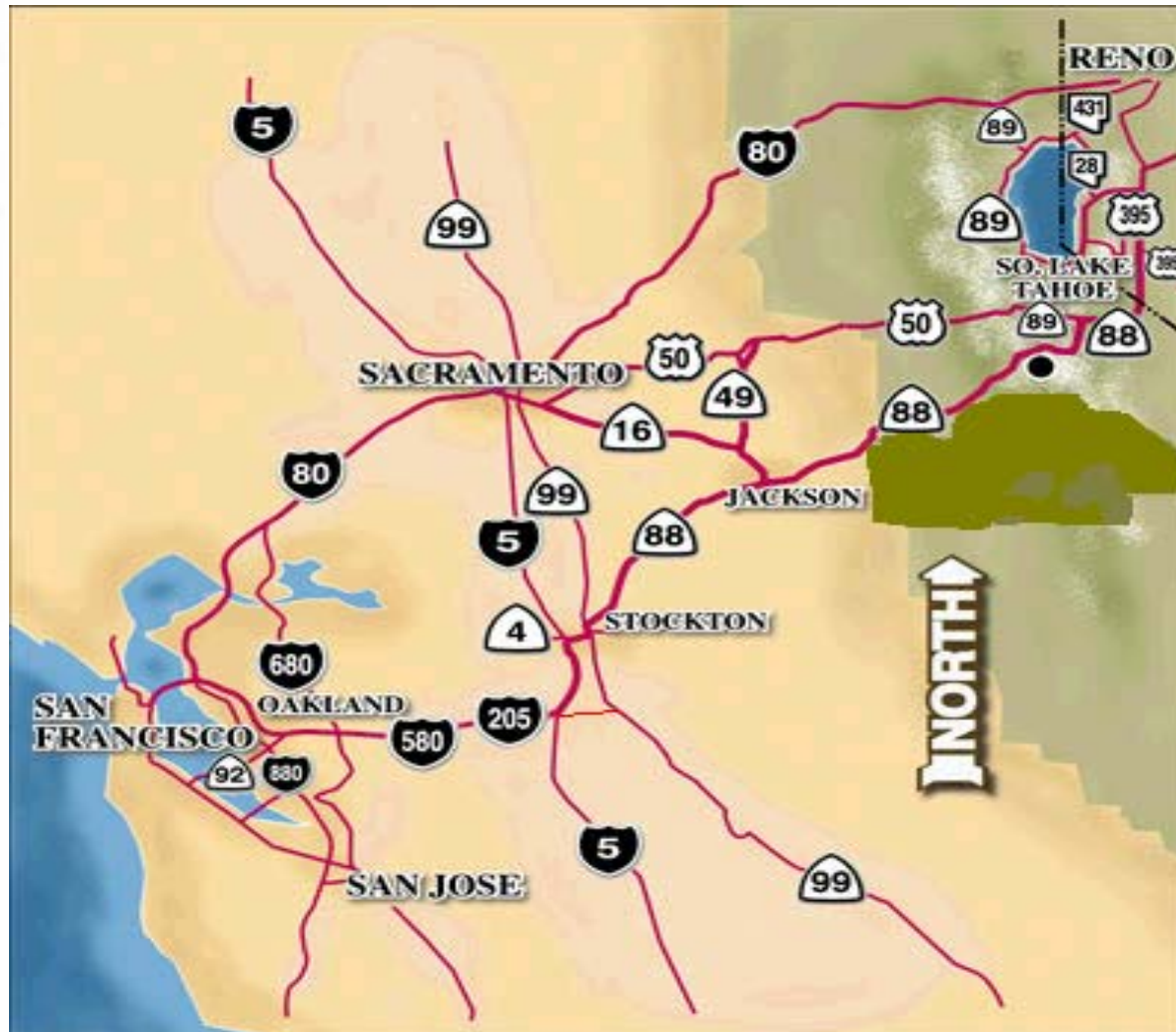


## **Managing Traffic During Poor Visibility A Journey through The Fog The Continuing Adventure**

**Clint Gregory  
California Department of Transportation**



# District 10



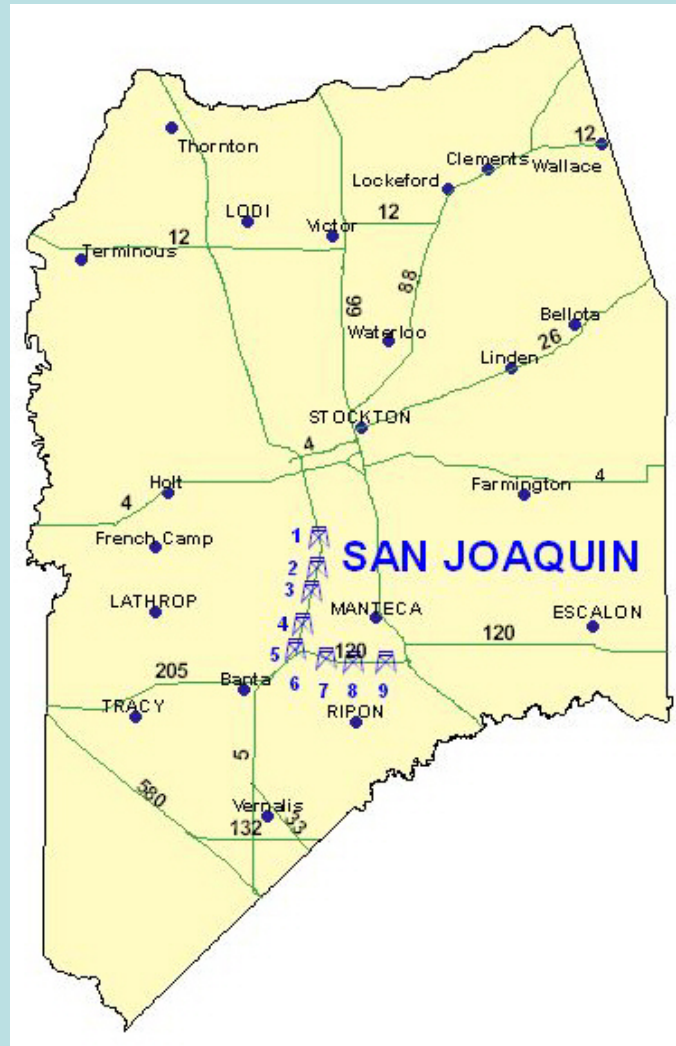
**CAWS**

# Caltrans Automated Warning System

Updates on the System

The Wizard hits the Road

# In the fog



# OVERVIEW

- Dense Fog Occurs Regularly in the San Joaquin Valley
- An Ideal Site for an Active Fog Warning System
- Deployment of CAWS in the Summer of 1996



# PRIMARY FUNCTIONS

- Detect Reduced Visibility
- Detect Congested Traffic
- Automatically Activate Changeable Message Signs to Provide Warnings

# AUTOMATED FEATURES

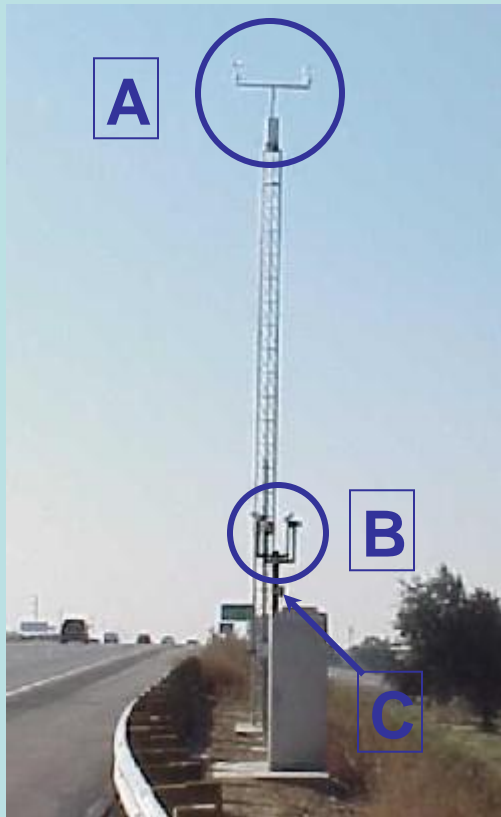
- Remote Meteorological Stations
- Traffic Speed Detection Stations
- Self-Illuminated CMSs

# WEATHER MONITORING SYSTEM

- Nine Weather Monitoring Stations Along Interstate 5 and Highway 120
- Weather Data Carried Over a Network of Dedicated and Leased Telephone Lines to Stockton Traffic Management Center (TMC)



# WEATHER STATION COMPONENTS



1 Wind Vane

2 Anemometer  
(Wind Speed)

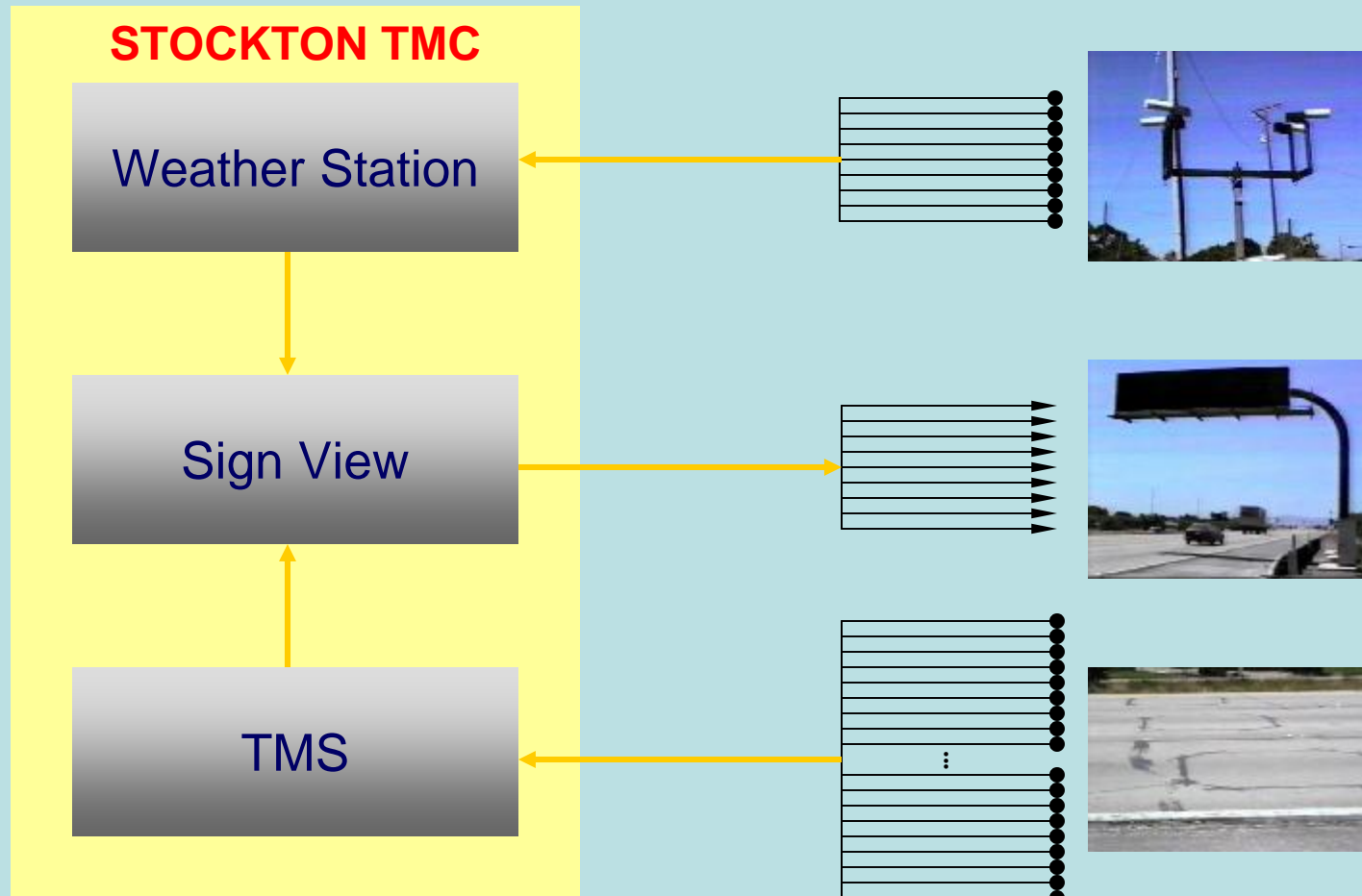
3 Rain Gauge

4 Visibility Sensor

5 Network Controller

6 Radiation Shield  
(Temperature)

# SYSTEM DIAGRAM



# BENEFITS

- One of the Most Advanced Systems
- Reduced Traffic Incidents Due to Limited Visibility
- Advanced Warning of Congested Traffic Conditions
- Provides Real-Time Information to Stockton TMC and Motorists

# Updates on the System

- Communication lines have reached end of life
- Fiber Optics cable is now being placed
- All systems will be IP based

# Remote Systems Updated

- Remote system minimum of one CMS, one RWIS and four TMS
- Systems are currently wireless
- Systems may include cameras

# Server Updated

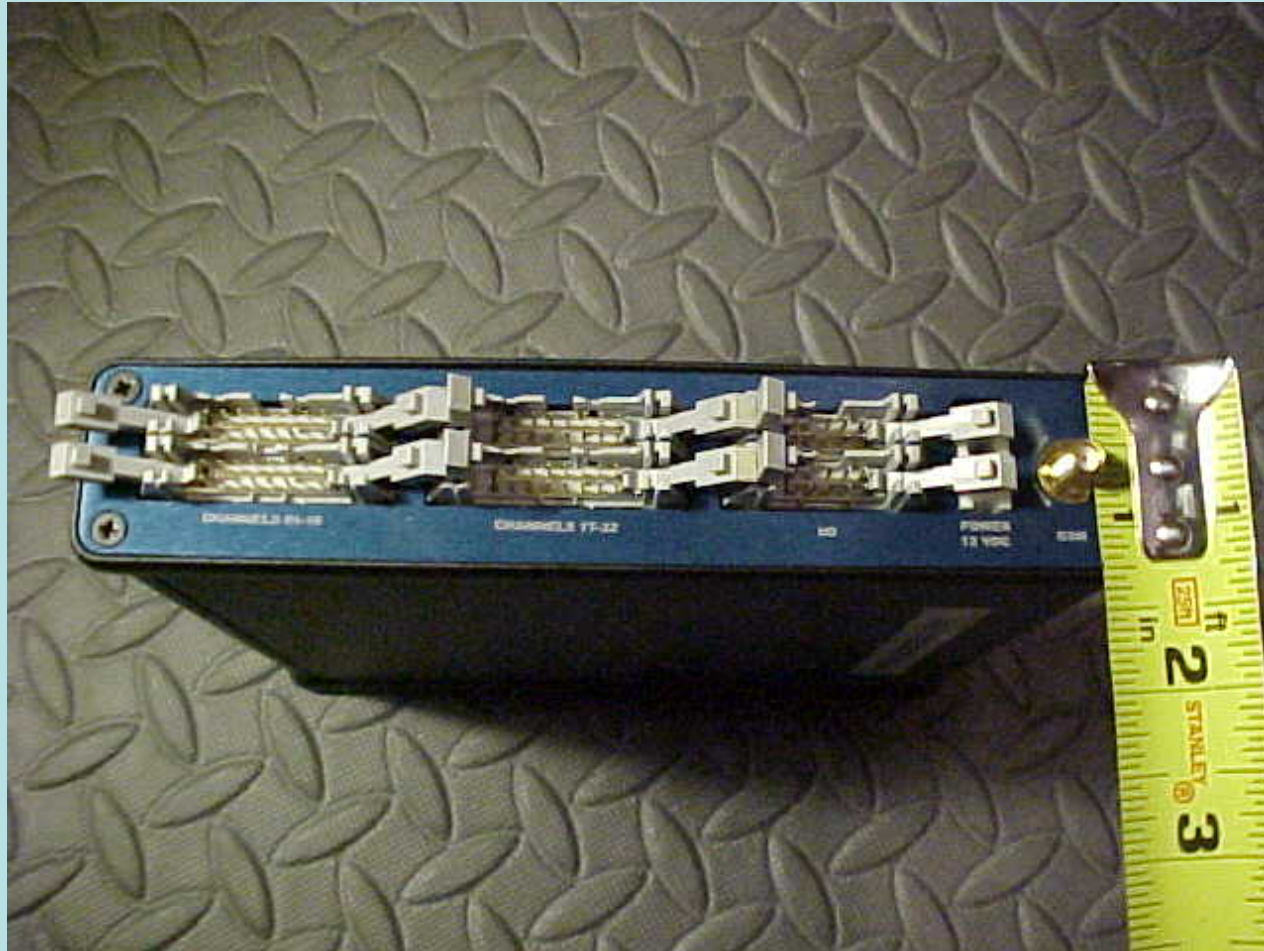
- Current weather data is in SQL server
- All new data (traffic and weather) will be in Oracle server
- I.T. will maintain the server

# The Wizard





# The Magic



# The Near Future

- Ability to access from multiple locations
- Rapid Field Decisions
- Easy Java coding

# Closing Points

- Office of Traffic Safety grant ends in June
- Visitors from Korea last month
- World Congress in San Francisco

# Questions

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